Application of: Ko-Pen Wang
Serial No.: 10/693,646
Filed: October 27, 2003
Reply to Office Action of January 10, 2006

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph **[0022]**, with the following rewritten paragraph:

[0022] Optionally, while in the first and/or the second extended positions, the needle 18 is reciprocally moved in a back and forth manner by manipulating the grippable cap 36 and/or by moving the leur lock 24 in a back and forth manner. By so doing, fluid or tissue samples can be sheared away from the target site. Thereafter, the grippable cap 36 is unlocked from directional nipple 30 ~~36~~ (if it was lockingly engaged with directional nipple 30) and is moved proximally to transform the medical device from the second extended position to the first extended position.

Please replace paragraph **[0033]**, with the following rewritten paragraph:

[0033] The proximal end of first spring section 220 is preferably coupled to or integral with a second spring section 224 also having proximal and distal ends. The second spring section 224 includes a plurality of turns of a wire member, with the distance between each turn defining a second wavelength 228, which, in one embodiment, is larger than the first wavelength 226 while the medical device is in the retracted position. Alternatively, the second wavelength 228 is smaller than the first wavelength 226 while in the retracted position. Optionally, if first and second spring sections 220 and 224 are not integrally formed ~~formal~~, the distal end of second spring section 224 is fixed to the proximal end of the first spring section 220 with an adhesive, solder, a coupling member, e.g., a tubular member crimped or otherwise secured about the first and second spring sections, or by other mechanical means. As shown in FIG. 2, the first and second springs are formed of a single wire member. That is, the first and second spring sections are integral with one another. Second spring section 224 is preferably oriented coaxially within outer catheter 12. The length of second spring

section 224 defines a second region of flexibility 230 as shown in FIG. 2. The presence of the second spring section 224 with a different and greater wavelength than first spring section 220 provides for increased flexibility in the second region 230 of the medical device of the present invention over conventional biopsy sampling devices. Moreover, the mechanical properties of second spring section 224 are preferably such that the flexibility within the second region 230 is greater than the flexibility in the first region 222 while the needle is in the retracted position. This increased flexibility of these multiple springs provides significant advantages by allowing the distal end 16 of the medical device to flexibly maneuvered to the target site to be sampled.

Please replace paragraph **[0036]**, with the following rewritten paragraph:

[0036] This locking feature of the present invention ensures that the biasing force as shown by arrow 402 on needle <u>18</u> ~~102~~ is provided so as to resist compression forces tending to retract or push needle 18 back into catheter 12. Resisting such compression forces is extremely important when consideration is given to the fact that oftentimes relatively tough tissue must be penetrated (e.g. bronchial walls or hard tumors) in order to obtain the desired biopsy material. Thus, such tough tissue may exert a sufficient amount of resistance against needle 18 so as to cause at least partial retraction thereof into outer catheter 12. Such partial retraction of needle 18 is to be strictly avoided in order to get the best sample in such hard tissue. For example, should partial retraction occur, the attending physician would not be able to completely penetrate the bronchial wall in order to obtain a biopsy sample of the lymph nodes therebehind. This inability may lead to a misdiagnosis of the patient's ailment, for example, as the tissue sample which will be obtained will not be of the diseased lymph node, but rather will be of the undiseased bronchial wall.

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Please replace paragraph **[0037]**, with the following rewritten paragraph:

[0037] In another embodiment, the stylet 20 ~~18~~ may interact with a recessed surface (not shown) which optionally is formed in the needle 18 by crimping a predetermined portion of needle 18 to reduce the diameter of the internal needle cavity at that point. The resulting narrowed flow path in needle 18 should be of sufficient diameter to permit biopsy material to pass therethrough. This interaction provides an additional biasing force further resisting undesired compression forces tending to retract needle 18 into catheter 12. The recessed surface embodiment is fully disclosed in my U.S. Patent No. 4,617,940, the entirety of which is incorporated herein by reference.